

Appl. No. : 10/820,371
Filed : April 8, 2004

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows. Additions are underlined; deletions are in ~~strikeout~~ text.

[0001] This application is a continuation of U.S. Application Serial No. 10/446,501, filed on May 28, 2003, now U.S. Patent No. 6,813,781, which is a division of U.S. Application Serial No. 09/420,738, filed on October 20, 1999, now U.S. Patent No. 6,584,615, which claims priority under 35 U.S.C. 119(e) from Provisional Application No. 60/107,357, filed on November 6, 1998. The entirety of each of these related applications is hereby incorporated by reference.

[0051] The cuff 114 is adapted to encircle the wearer's wrist, which is where the forearm meets the hand. In the illustrated embodiment, the cuff 114 includes three elements 114a, 114b, 114c. As best shown in Figure 3, portions of elements 114a and 114b overlap one another. As best shown in Figure 4, portions of elements 114a and 114c also overlap one another. A padded cuff roll 115 is disposed about the cuff 114. The cuff roll 115 is preferably wider along the base of the thumb member 130 and palm 116 of the glove 110 than on the back side 140. Preferably, the cuff roll 115 along the base of the thumb 130 and palm 116 has a rigid insert disposed therein, such as a polyethylene plate or other suitable material.

[0053] The thumb member 30, 130 of both gloves 10, 110 preferably comprises a substantially rigid articulated skeleton 50. With next reference to Figures 5-11, a preferred embodiment of an articulated skeleton 50 having features of the present invention is shown. As shown in Figure 5, the articulated skeleton 50 is arranged within the glove and adapted to fit over the wearer's entire thumb to protect the thumb from impacts to the thumb area 30, 130 of the glove 10, 110. In view of the skeleton's fit and protective function, it may also be referred to as a shell. In order to follow the natural anatomy of the user's hand, the thumb skeleton 50 is preferably oriented at an angle θ relative to the wearer's palm of about 30-40° and more preferably about 35°.

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[0054] As shown in Figures 6-7, the articulated thumb skeleton 50 preferably comprises a base section 52, a middle section 54, and a tip section 56 joined to each other at pivot points 62, or hinges. The sections 52, 54, 56 can also be referred to as shell portions. The base and middle sections 52, 54 each have a notch 60 formed therein and, as depicted in Figures 8-10, an extension 64 extends beyond the notch 60. The pivoting connection between the tip section 56 and middle section 54 is preferably similar to the pivotal connection between the middle section 54 and base section 52. Thus, the preferred pivotal connection between the tip section 56 and middle section 54 will be described below as typical of such a connection.

[0056] When the sections 52, 54, 56 of the articulated skeleton 50 are pivotably, or hingedly, joined together, the skeleton 50 may articulate and move from the open position shown in Figure 6 to the closed position shown in Figure 7. As known, a human thumb comprises multiple bones or phalanxes. The closed position roughly follows the position of a thumb while grasping a hockey stick. As shown in Figures 5-7, and considering the phalanxes of a human thumb, the sections 52, 54, 56 roughly correlate to the proximal-most, middle and distal-most phalanx. Thus, the sections of the articulated skeleton move with the wearer's thumb as it grasps the stick. As a result, the wearer's grasp is improved and fatigue during grasping is minimized.

[0060] Figures 12 and 13 illustrate another preferred embodiment of an articulated skeleton 150 having three adjoining sections including a base section 152, a middle section 154, and a tip section 156. The base and middle sections 152, 154 have notches 160 formed therein and extensions 164 extending beyond these notches 160. The sections 152, 154, 156 are rotatably connected to each other at pivot points 162. The skeleton 150 preferably articulates in a manner similar to the skeleton 50 embodiment discussed above. By depicting the skeleton 150 in open (Figure 12) and closed (Figure 13) positions, these figures illustrate the hinge-like movement of the sections 152, 154, 156 about pivot points 162, or joints. As further illustrated by Figures 12 and 13, when the skeleton is in the open position, each extension 164 is completely overlapped by the adjacent section; however, when the skeleton is in the closed position, the extensions 164 are at least partially exposed. Thus, the degree of overlap varies as the sections 152, 154, 156 pivot.